**Homework 1 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Points, Lines, and Planes Period: \_\_\_\_\_\_\_\_Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to use complete sentences will result in a LaSalle.**

|  |  |
| --- | --- |
| 1. Define “collinear” and sketch an example of collinear points. | 2. Define “coplanar” and sketch an example of coplanar points. |
| 3. What is the different between a ray and a line? | 4. Write the necessary notation above “AB” to demonstrate that (a.) is a line and (b.) is a line segment.   1. AB (b.) AB |
| 5. Use the diagram to decide whether the given statement is *true* or *false*.   1. Points E, G, and F are collinear. \_\_\_\_\_ 2. Points E, G, and F are coplanar. \_\_\_\_\_ 3. Points *H*, *I*, and *G* are collinear. \_\_\_\_\_ 4. Points *H*, *I*, and *J* are coplanar. \_\_\_\_\_ | |
| http://image.tutorvista.com/Qimages/QD/39197.gif  6. Name at least 3 sets of 3 points in the figure above that are collinear.   1. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 2. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 3. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ | http://image.tutorvista.com/Qimages/QD/50234.gif  7. Name at least 3 sets of 3 points in the figure above that are coplanar.   1. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 2. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ 3. \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ |

**Mixed Review**

Use substitution to determine whether the given point is on the line.

|  |  |
| --- | --- |
| 1. *y =x* + 4*; A*(3, 7) | 2. *y* = *x* –5; *A*(1, 6) |
| 3. *y* = –*x* –2; *A*(–8*, –*10) | 4. *y* = 5*x* + 3; *A*(1,8) |
| 5. *y* = −*x* + 3; *A*(6,3) | 6. y = −3*x* − 6; *A*(2,0) |
| 7. 2*x*−*y* = 7; *A*(3,−1) | 8. *x* + 6*y* = 40; *A*(−l0, 5) |
| 9. Is it necessary to rearrange the equation so that it is in *y = mx + b* form before using substitution to check for a point? Use complete sentences to explain your answer. | |
| 10. Rearrange the equations in numbers 7 and 8 so that both are in *y = mx + b* form.  7. 8. | |